

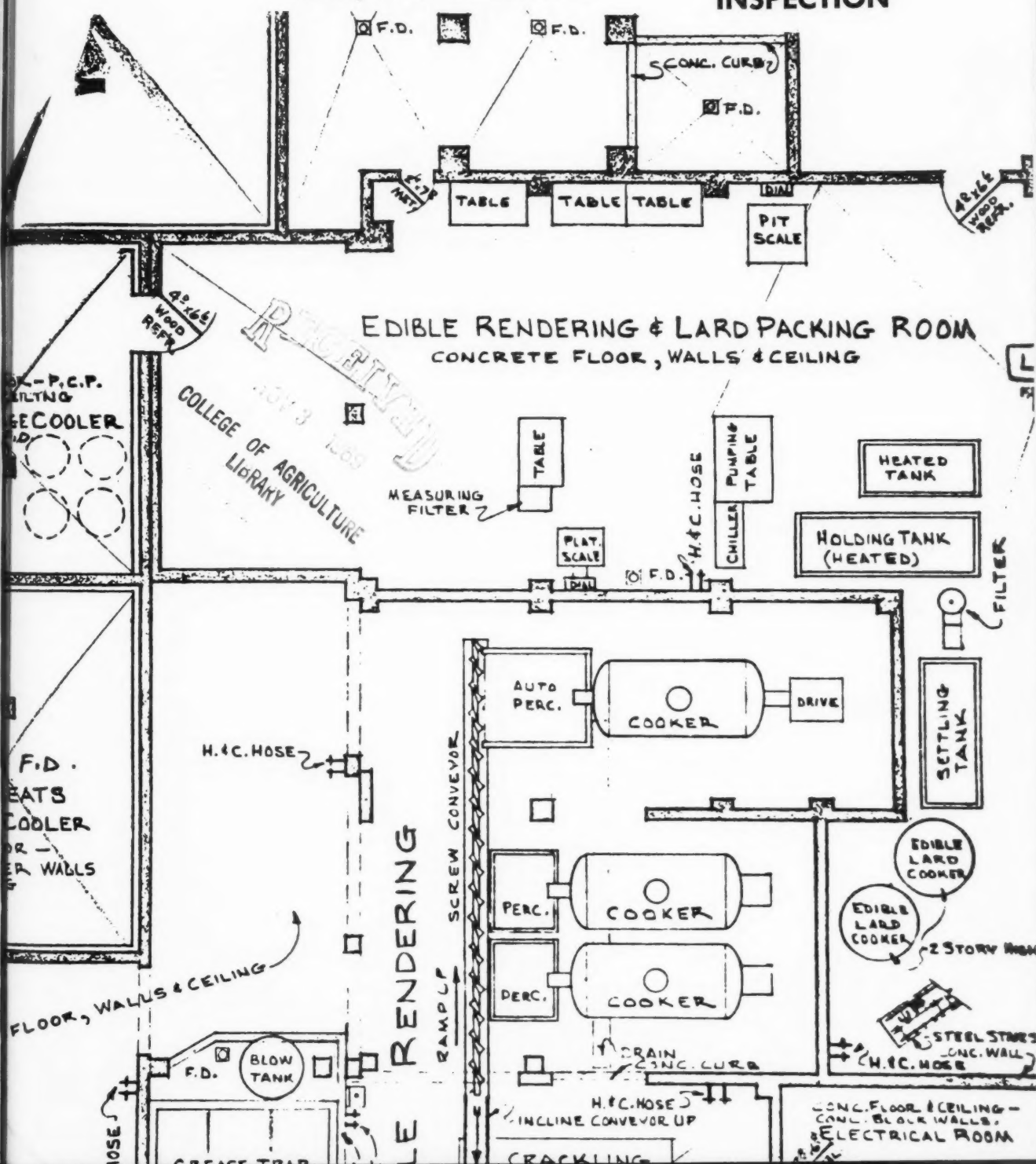


# AGRICULTURAL MARKETING

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## 5-PAGE FOCUS ON MEAT AND POULTRY INSPECTION

A Blueprint for Wholesomeness



# South Texas Limits Free-Flowing Onions

By Jim Wendland



**S**OUTH TEXAS ONION growers recently amended their marketing agreement and order so they could regulate the flow of their onions to market and prevent gluts.

They had been in a quandary. The harder they worked, the more they produced, and the more they shipped, the less they profited.

Their experience was that early in the season onion prices were profitable but as shipments increased, prices quickly went down. During peak shipping periods the supply of onions frequently exceeded the demand, resulting in rollers. ("Rollers" are carloads of produce shipped unsold with the hope of selling them before they arrive at their destination. Rollers tend to depress markets and frequently producers get little or nothing for their "roller" onions.)

Working with marketing specialists from the U.S. Department of Agriculture's Consumer and Marketing Service's Fruit and Vegetable Division, the South Texas Onion Committee, which administers the mar-

keting order program, devised a plan aimed at correcting this difficult problem by regulating the flow-to-market of their onions.

The plan was approved by the onion industry in South Texas and became part of their marketing order last April.

The South Texas Onion Committee is made up of onion producers and handlers who know from experience at about what volume shipments will exceed market requirements and cause prices to go below profitable levels for producers.

By dividing the total amount of onions all handlers could package or load during an hour into the total quantity that can be marketed at a profitable price each day, they can calculate the maximum number of hours of packing and loading needed to provide that quantity.

When they see that too many onions might be marketed, the committee can recommend to the Secretary of Agriculture that packaging and/or loading be restricted to a certain number of hours for a speci-

fied number of days to bring supply back in balance with demand. This will result in an orderly flow-to-market by preventing handlers from glutting the market with excessive supplies, especially during peak shipping periods, and help maintain a reasonable price level.

During the two weeks the new regulation was used the past season, packaging of onions was limited to the hours of 12:00 noon through 6:00 p.m. Monday through Friday and 10:00 a.m. through 12:00 noon Saturday.

However, the committee made provisions which allowed handlers to pack during a different period containing the same number of consecutive hours if they gave proper advance notice to the committee office and the inspector. This provision was added since packing shed operations are affected by the whims of weather, field delivery schedules, availability of trucks or rail cars, the condition of equipment, etc. Also, if any handler was prevented from packing due to conditions beyond his control, such as power failure, he could obtain permission to make up those hours.

The whole purpose of the regulation is to avoid market gluts without hampering the packing operations more than necessary. The regulation is flexible enough to permit each handler to package onions on the same basis as any other handler, and still accomplish the intended purpose of the marketing agreement and order which is to improve returns to onion producers. □

*The author is a marketing specialist, Fruit and Vegetable Division, C&MS, USDA.*



Dr. Gilbert H. Wise

## His Mission: **CONSUMER PROTECTION**

**T**HE TURKEY, HAM, or roast that Americans will consume for Thanksgiving fare, or for any other meal, will likely be eaten with confidence that it's safe, wholesome food.

This sense of security, amplified by Federal and State implementation of new wholesome food laws, stems largely from an inspection organization in the U.S. Department of Agriculture that has matured along with the growth in America's meat packing and poultry processing industries.

Perhaps more graphically, it results from the daily work of about 8,050 of the employees in USDA's Consumer and Marketing Service, most of them food inspectors stationed in 4,150 meat and poultry plants across the country.

The man now in charge of this far-flung inspection organization brings to his new post a strong feeling about the importance of the inspection function. "Our first responsibility as a Government consumer protection program," Dr. Gilbert H. Wise emphasizes, "must be to the general public. Obviously, we also must work with many sectors of U.S. agriculture. At stake in what we do is the health and well-being of the consumer and the integrity of the agricultural industry's product, which are interdependent."

The nationwide inspection team that Dr. Wise now works with is made up of about 5,880 food inspectors, 1,475 veterinarians, and 700 management, laboratory, and other support personnel.

In 1968 they inspected or re-inspected 100 billion pounds of meat and poultry products marketed across State or U.S. borders. They condemned as unfit for food 383 million pounds of poultry and poultry products, 370,000 meat animals, and about 35 million pounds of meat and meat food products. They refused entry into the United States or condemned 21 million pounds of foreign meat products. To insure that products were truthfully represented to the consumer, they reviewed about 100,000 different meat and poultry product label designs, rejecting about 2,000 that didn't accurately state the contents of the package.

"I have a tremendous respect for what the inspection service has accomplished since its establishment and a deep regard for the people in the service," says Dr. Wise.

Named in July 1969 to the C&MS post of Deputy Administrator for Consumer Protection, Gil Wise recognizes the demands put on the individuals who carry out the inspection responsibilities. "They're subjected to constant questioning from the industries they regulate. Every day they have to make unpopular decisions. In this very difficult environment," he stresses, "it takes people of unusual dedication and a great sense of balance to continue functioning."

The decisions he refers to—involving plant sanitation, health of livestock and poultry moving into slaughtering plants, and fitness of processed meat and poultry products for food—are sometimes "hairline"

ones, but he says they are vital to insuring that the consuming public retains full confidence in its meat and poultry supply.

Dr. Wise has been associated with public health programs during the 20 years he has been with USDA. Before his appointment to the C&MS post in July, he was with the Animal Health Division of USDA's Agricultural Research Service—serving since 1967 as associate director; for six years as a senior veterinarian in swine diseases; and from 1949 through 1961, as a field veterinarian in Michigan, New Jersey, Ohio, and California.

Experience with animal health work has helped prepare him for his duties with the meat and poultry inspection program. Both programs, with interrelated goals, have enjoyed a close working relationship and involve contacts with many of the same people in State governments and in livestock and poultry circles. Like the animal health program, the inspection program has become—since enactment of the Wholesome Meat Act in 1967 and the Wholesome Poultry Products Act in 1968—a Federal-State venture, with the States and USDA sharing the task of implementing a nationally uniform inspection system.

Before beginning his government career in 1949, Dr. Wise received his degree of Doctor of Veterinary Medicine from Michigan State University in 1943, was a captain in the veterinary corps of the U.S. Army during World War II, and engaged in private veterinary practice. □

# FOOD INSPECTORS IN STEP WITH AUTOMATION

By Dr. K. E. Peterson

**A**UTOMATION, THROUGH the years, has been both a boon and sore bone to man, and this fact remains true today with meat and poultry inspection. Federal food inspectors keep closely attuned to changes in equipment and industry practices. Through changes in meat inspection regulations, they adapt their procedures to reflect the continual modernization of a growing industry.

The prime goal of Federal inspection is to assure the Nation's consumers of wholesome food, handled under sanitary conditions. The U.S. Department of Agriculture's Consumer and Marketing Service is aware of industry's need for newer and faster methods of supplying meat and poultry, but the wholesomeness of food products always remains of paramount importance.

One of the greatest advancements in increasing the speed and proficiency of the slaughter operation is the overhead rail. Although not new, this equipment has been improved to allow for the complete identity of all livestock and poultry carcasses and parts to be kept for a centralized, post-mortem inspection. To adapt to this increase in speed, inspectors remain in one location and each specializes in one specific operation. For example, where one inspector would formerly do the entire carcass inspection and viscera, now two or three inspectors each perform a designated part of the total post-mortem inspection.

Another innovation in slaughter operations is the use of automatic hide removers which are replacing the skinning knife in larger plants.

This equipment, although doing a faster job, can cause contamination to parts of the carcass which was not caused by hand skinning. As a protective measure, inspectors check for dust particles caused by rapid skinning to assure that both meat and equipment are kept clean.

In most new plants modern refrigeration and rapid freezing of inspected edible viscera is replacing outdated chilling methods. As this rapid chilling and freezing increased the shelf life of both fresh and frozen products, it was necessary to modify inspection procedures to assure wholesomeness. Before rapid freezing, the product was kept in a cooler and inspection was done at a convenient time, usually the end of the day. Now, because the product is immediately frozen, inspection must be done by random samples of the product. If for some reason the sample is unsatisfactory, the entire lot of product must be retained for detailed examination.

New ideas in plant materials have also called for new inspection procedures. Besides stainless steel, which is primarily used for equipment, plastics are now starting to be used for lighter jobs. Synthetic boards, some made of very hard rubber, are replacing wood because they will not splinter and are non-permeable, making cleaning easier. Inspection procedures, which are primarily concerned with sanitation, have been changed to permit use of these new materials. The inspector can readily check the sanitation of equipment because there is very little question about the cleanliness of these

smooth-surfaced new materials.

Today's plants are specializing more. Single-level plants are being built closer to farms and ranches to lessen shipping and storage costs. This has caused a modification of inspection procedures and workloads.

Although it is inconvenient for inspectors to travel from metropolitan areas to reach some plants and rotation of inspectors is sometimes difficult, specialized plants do have benefits for the inspectors. Inspection of the product is more efficient because the inspector in a one-level plant does not have to walk to different floors to check on various things.

The returned product is brought to one central location and inspected upon arrival. This is to make sure no contaminated or unacceptable food ever mixes with the edible product.

Modern equipment helps the meat and poultry processor produce a more nearly uniform product. Yet, with the increase in volume and diversification in modern food production, greater technical knowledge is required of the food inspector. Constant surveillance over sanitation, chilling, freezing, product stability, and proper labeling gives the inspector a full-time job in assuring the consumer of wholesome meat and poultry food products. □

*The author is Assistant Chief of the Operations Branch, Slaughter Inspection Division, C&MS, USDA.*



# A BLUEPRINT FOR WHOLESOMENESS

By  
Bartie T. Woods  
Dr. R. J. Keller

A CASUAL OBSERVER at a federally inspected meat or poultry plant would find it difficult to appreciate the advance planning of facilities and equipment which helps guarantee that the plant will turn out only wholesome products.

No doubt the visitor would be impressed by the shine of the stainless steel machines and tables and by the cleanliness of the entire operation. But the same visitor would have no way of knowing about the preparations that took place before the first brick of the walls was laid and before the machines were flicked on for the first time.

Two important groups of experts within the U.S. Department of Agriculture's Consumer Protection Program handle the bulk of this preliminary work. These are the Facilities Group and the Equipment Group within USDA's Consumer and Marketing Service.

To the Facilities Groups falls the task of accepting or rejecting plans for new meat and poultry plants or modifications to old ones. Prior clearance of the design and construction of the sophisticated mechanical devices used in the plants is the assignment of the Equipment Group.

Uppermost in the minds of both teams is the ability of the plant and the equipment to turn out wholesome meat or poultry. All of the meat and poultry inspection regulations which apply the principles of modern food hygiene to day-to-day operations of the industry are derived from Federal inspection laws.

For a guidebook to the regulations, the meat industry can rely on "U.S. Inspected Meatpacking Plants, A Guide to Construction, Equipment, Layout." A new revision of this publication, Agriculture Handbook 191, is now available for \$1.50 from the U.S. Government Printing Office,

Washington, D.C. 20402.

Before the Facilities Group can give a plant owner the "OK" for a construction project, it must carefully review a detailed set of blueprints.

The blueprint for a plant would first have to include a "plot plan" indicating the location of a building in relation to other nearby landmarks. This enables the team of five C&MS blueprint appraisers to tell if, for example, dust from a nearby dirt road would affect the wholesomeness of the products.

A blueprint of the floor plan must indicate, for instance, the location of walls and windows, the arrangement of carcass rails, and the placement of equipment and hand washing facilities.

In addition, the package of blueprints must include an explanation of the finishes for interior walls, important to keeping the plant sanitary. Finally, the building planners must indicate the arrangement of underground drainage lines.

A skilled examination of the blueprints will first reveal how easy the plant will be to keep clean. Second, the drawings will show how convenient it will be for an inspector to monitor the operations once they begin. The Facilities Group can frequently save the government money by correcting an inefficient layout that would have required more inspectors than actually necessary.

All blueprints submitted are microfilmed and kept on file. This reference index gives the Facilities Group a complete picture of a packing operation and any changes that have been made over a period of years.

The Equipment Group employs a similar clearance procedure for new processing and packing devices. Initially, the manufacturing firm will submit an assembly drawing of the

machine and a list of materials which will be used in its construction. The drawing will indicate how easily the machine can be disassembled for cleaning. Through the materials list, the Equipment Group can be certain that no toxic materials, such as lead, will come in contact with the meat or poultry.

Generally, a new device is approved for a trial installation in a plant. A Federal inspector can then observe the machine under actual operating conditions. If necessary, he will recommend remedies for any "bugs" in the device. Even after final approval is granted, the inspector will remain watchful for any problems which may develop. Procedures are also available for obtaining approval of "one of a kind" equipment that may be built in a plant for use in that plant only.

Although the approval procedures used by both of these groups may at times be tedious and time-consuming, the end result benefits the meat and poultry industries. A packer, for instance, may proceed to alter a new plant, confident that the layout has been officially approved. An equipment manufacturer may also proceed to turn out new machines, confident that the equipment has met USDA standards, and the potential buyer of the equipment can be confident that it will produce wholesome products. The general public, of course, benefits through a more wholesome supply of meat and poultry. □

*The authors are, respectively, Head of the Equipment Group and Head of the Facilities Group, Facilities, Equipment and Foreign Programs Branch, Technical Services Division, C&MS, USDA.*

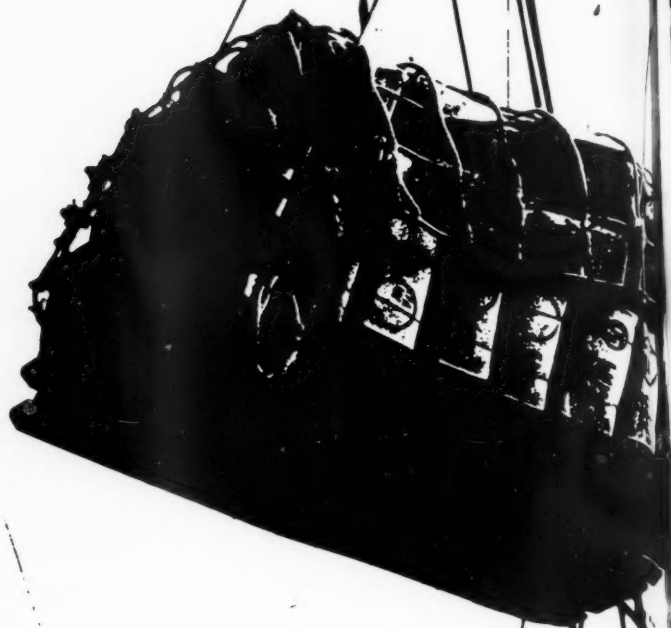
# IMPORTED MEATS FIT TO EAT

**T**HE U.S. DEPARTMENT of Agriculture's Consumer Protection Program stretches overseas to more than one thousand packing plants which are authorized to export meat to the United States.

Before any shipments to this country are permitted, the foreign nation's inspection system must be rated by USDA's Consumer and Marketing Service as at least equal to the U.S. program. The foreign country will then certify specific plants which may ship meat to the United States. Each of these plants is visited at least once a year by a C&MS foreign review officer to make sure the country's inspection system is functioning adequately.

Once a shipment arrives in the United States, representative samples of the load are statistically selected for close scrutiny by C&MS inspectors. The condition of the containers is checked, the net weights verified, and the wholesomeness of the product evaluated both by the naked eye and by laboratory analysis. Only when wholesomeness is assured will the shipment be allowed to enter the U.S. marketplace.

As of Oct. 16, 1969, there were 1170 plants in 40 foreign countries certified to export meat to the United States. □



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(Left) The C&MS foreign review officer, center, makes sure the foreign program includes inspection of all animals before slaughter. Here a flock of Australian sheep is checked for possible diseased animals. After slaughter (right) the animals must again be checked. The review officer observes an Australian inspector examine a beef carcass for injury or disease.



(Left) A C&MS review officer, center, observes Irish inspectors examining boneless meat cuts prior to shipment. Then, from each large shipment of meat arriving in the United States, a representative sample (right) is selected for thorough testing by C&MS inspectors.



(Left) The condition of containers is also checked and the correctness of the label is verified by weighing the net contents. Containers of imported products must be marked with the country of origin. After the wholesomeness of the shipment is confirmed, the Federal inspection mark is placed on each carton (right) and the meat can enter the U.S. In fiscal 1968, 1.5 billion pounds of meat was accepted for U.S. entry, and 21.3 million pounds of meat was denied entry for lack of wholesomeness, cleanliness, or proper labeling.

*Largest Emergency Food Aid in USDA History*

# **USDA FOOD ARRIVES IN CAMILLE'S WAKE**





**H**URRICANE CAMILLE swept across the Southeast United States last August leaving in her wake some of the worst devastation ever recorded by a natural disaster in this country. The brunt of the huge storm hit the gulf coastal areas of Mississippi, Louisiana, and Alabama where thousands of residents were left homeless, harried, and hungry.

To help disaster relief groups feed the victims of Hurricane Camille, the U.S. Department of Agriculture's Food and Nutrition Service made food available within hours after the storm passed. Besides the USDA food that was already in the area stored in schools, distribution centers, and warehouses, the Food and Nutrition Service began sending truckloads of food into the area the day after the storm.

Within a week USDA had already sent about two million pounds of food to the coastal communities, and an additional 1.9 million pounds was either scheduled for shipment or stored for later use. Neill Freeman, director of the Commodity Distribution Division, reports that USDA's emergency food assistance in this tri-state coastal area was the largest ever handled by the Department.

Hurricane Camille also caused flooding in West Virginia and Virginia as the storm passed through those States. Over 125,000 pounds of food was provided to aid families there.

Most of the food shipped to the coast was sent from the warehouse in Jackson, Miss., about 150 miles north of the gulf coast. Thousands of pounds of USDA food was diverted from other parts of the country and sent to Jackson to guarantee that ample amounts of food would be available for the massive food operations.

During the first week of the emergency, every mode of large-sized transports—trucks, airplanes, helicopters, and railroad—was used by USDA to get food to the various coastal towns in the fastest manner.

Once the food was in the area, USDA offered it to such disaster relief organizations as the Salvation Army, Civil Defense and the American Red Cross, as well as several locally organized volunteer groups,



which distributed the food directly to families in need or which set up actual feeding operations at shelter sites for serving meals to disaster victims.

Sheriff Fred Curet of Hancock County (Miss.) who helped coordinate the food distribution projects in the Bay St. Louis area, where a large warehouse stocked with USDA food is located, expressed gratitude for the speedy food help by saying, "Your Department was in here early, and you've been a big help to us. We really appreciate all the food."

USDA Commodity Distribution teams in Gulfport, and Jackson, Miss., set up a special telephone line between the two cities and were in constant touch determining the quantity and variety of foods needed in the different locales.

Most of the foods USDA sent into the area were those which required little or no cooking or preparation. This was particularly necessary because the storm had disrupted regular power sources and because many relief groups and families had limited ways of preparing meals.

More than a dozen of these types of foods were shipped into the disaster area during the first week.

These included canned chopped meat, turkey, and beef; non-fat dry milk, evaporated milk, canned butter, cheese, raisins, fruit juices, peanut butter, dried prunes, and canned vegetables. Special shipments of corn syrup and fruit juices were also provided for the care of infants and children who were sheltered in the coastal area.

The Salvation Army Headquarters in Gulfport was a major outlet for USDA food and provided assistance to about 3,000 families in the first three days of the emergency. Glenn Stovall of Houston, Tex., who helped direct the Salvation Army's assistance in Gulfport and surrounding communities, was particularly pleased with the variety and convenience of the USDA donations.

A typical reaction of food assistance recipients was given by a Gulfport mother of five as she was leaving the Salvation Army center. "I don't know what we would do without this food," she said. "The grocery stores are either destroyed or closed. At first I was worried about feeding my family, but I think we're going to make it now." □

# **co-op buying boosts school lunches**

By Arthur C. Boynton

SIX NEW YORK STATE school districts had a problem.

Each one wanted to improve the quality and uniformity of the canned fruits and vegetables they bought for their school lunch programs and at the same time reduce the cost of these purchases. But it was almost impossible for each school district to devote the time, manpower, and money necessary to achieve this.

The solution to their problem was forming an informal buying "cooperative" to coordinate the purchases of all six school districts.

Funds for development of the "co-operative" were provided by a New York Department of Agriculture and Markets' Federal-State matching fund project. This exemplifies the joint endeavors under which the Matching Fund Program of the U.S. Department of Agriculture's Consumer and Marketing Service provides both financial and technical assistance to New York and other States in developing marketing service programs.

The idea for a "cooperative" began with several members of the Tri-County (Warren, Washington, and Saratoga) School Lunch Directors Association. Working with the New York State Department of Agriculture and Markets, they developed the "cooperative" to: 1) gain stronger buying power to order and

get the exact grades needed and thus upgrade the quality of food served; 2) increase the use of New York State products; 3) encourage the use of Federal and State quality control services; 4) reduce the cost of the food and its preparation.

To help the "co-op" improve the quality of school purchases, C&MS's Fruit and Vegetable Division conducted a series of demonstrations to explain U.S. grades for canned fruits and vegetables. They also provided information on specifications for food purchases used by USDA and other Federal and State agencies.

Choosing a specific grade or quality is important because ordering only the best can be wasteful—and ordering the lowest can ruin a meal or cause undue waste. Many products when used in sauces, soups or baking lose their appearance or portion size, the characteristics which make them expensive. For such purposes, a second or third grade can usually be used at a substantial monetary saving. Where appearance is important, top quality should be ordered.

After contacting wholesalers for suggestions and information on the availability of certain grades of canned fruits and vegetables, the "co-op" members made up a list of the various products they wanted and established detailed specifications for each product, including the grade desired.

The "co-op's" contracts with wholesalers require official USDA inspection of all purchases to see that they meet specifications.

"Co-op" buying not only saved the six school districts money—purchase costs were cut an average of 6 percent in the 1967-68 school year—but brought these other benefits: USDA inspection of purchases insures products of uniform quality, the time and expense of preparing and processing bids by each school district are reduced, and service from wholesalers is better because of the larger volume involved. □

*The author is Senior Marketing Representative, Division of Marketing, New York Department of Agriculture and Markets.*

## **FOOD TIPS**

-from USDA's Consumer  
and Marketing Service

That cold nip in the air means fall is here! Time to pull out all stops and serve hot, zesty meals for the family. A good way to win the praise of everyone is to serve *sweetpotatoes*. The U.S. Department of Agriculture's Consumer and Marketing Service advises that moist-type sweetpotatoes, sometimes called yams, are the most common type. They generally have orange-colored flesh and are comparatively sweet. They are available in varying amounts the year round. Look for well-shaped, firm sweetpotatoes with smooth, bright, uniformly colored skins. Avoid sweetpotatoes with obvious signs of decay. Although the remainder of the flesh looks normal, after you cut away the decayed portion, it may have a bad taste. Sweetpotatoes should not be stored in the refrigerator. □

\* \* \*  
Broiling steaks? Why not try a *sirloin tip* or *top round* steak for a change? The U.S. Department of Agriculture's Consumer and Marketing Service says that if these cuts are graded USDA Prime or USDA Choice, they can be broiled. These are economical cuts because they have practically no waste. Another suggestion is to buy a blade chuck, either USDA Prime or Choice. Ask for a "first cut" chuck—that's the one next to the rib roast. You can then cut out the round muscle next to the rib bones, which is an extension of the ribeye muscle, and have delicious "Delmonico" steaks. The rest can be used for pot roast or stew. □

# BOSTON DEMANDS MALNUTRITION'S SURRENDER

A FIGHT TO WIPE out malnutrition among mothers and young children from low-income families is currently being waged in Boston. The battlefield is the Tufts Columbia Point Health Center. The commanders are health officials and nutritionists. And their arsenal consists of specially fortified foods.

This battle is possible through the newly established Supplemental Foods Program, developed jointly by the U.S. Department of Agriculture, the Office of Economic Opportunity, and the U.S. Department of Health, Education, and Welfare. The special foods are donated by USDA's Food and Nutrition Service in cooperation with the Office of School Lunch Programs, Massachusetts State Department of Education.

Head Nurse Rita Pope and her staff, after determining that a mother

and her children are in need of supplemental foods, write a "prescription" for the kinds and amounts they require. This is then honored in the distribution center next door, where the family can pick up the foods free of charge.

Four different food packages can be prescribed, depending on the age of the children. They include: evaporated milk, corn syrup, vitamin enriched nonfat dry milk, fruit juice, canned fruits, meats and vegetables, scrambled egg mix, and farina.

Another important phase of this new food program is the development and initiation of food education activities. To get maximum benefit from supplemental foods, young mothers need guidance in using them from the center's staff of nutritionists, nurses, and health aides.

Expectant or nursing mothers and their young children are automatically eligible if they qualify for free medical, food, or welfare help, and if medical authorities find they need supplemental foods.

Since this program is designed to supplement the regular diet of a segment of our population extremely vulnerable to malnutrition, it is not limited to areas operating USDA's Commodity Distribution Program for Families. It will also be available to Food Stamp Program areas and areas without a USDA program.

Health centers and clinics interested in participating in this new program are advised to contact the USDA's Northeast regional office of the Food and Nutrition Service at 26 Federal Plaza in New York City. The phone number is (212) 264-4110. □

## Six Points to BETTER MILK MARKETS

WHAT IS A BETTER milk market? It is something different to everyone, depending on his point of view.

A dairy farmer with milk to sell naturally thinks of a better market in terms of the price he will receive. Is it in keeping with his production costs, his investment, time, and efforts? And will he always have a buyer for his milk? He wants a "yes" answer to these questions.

But a consumer is prone to think in terms of the availability of the dairy products she wants and needs for her family, at what she feels is a reasonable price.

Both dairy farmers and consumers, as well as milk dealers in between, are interested in keeping milk moving through the marketing system.

Thus they all have something to gain from the Federal milk marketing order program, authorized by Congress some thirty years ago, and

expanded through the years by popular request and approval of dairy farmers affected.

The program is aimed at maintaining orderly marketing conditions between dairy farmers and milk dealers in order to keep a dependable supply of milk on hand for consumers, as they buy for whatever their day-to-day needs may be.

This is keyed to the Federal milk order minimum prices to farmers—the least that milk dealers can pay dairymen from whom they buy milk.

While prices consumers pay for milk are not set by the orders, the market stability the orders create in earlier channels of trade is passed on and enhances market stability at the retail level.

According to dairy marketing specialists in the U.S. Department of Agriculture's Consumer and Marketing Service, some important characteristics or prerequisites for an effective and better marketing situa-

tion are:

- A market where prices are relatively stable in the shortrun and one which provides farmers with some assurance of future prices on which to base production plans.

- A market in which farmers have some assurance that they will have an outlet for their milk.

- Prices which provide a fair return on dairy farmers' investments and which, at the same time, are not so high as to discourage acceptance of milk and dairy products by consumers.

- Fair weights and tests on milk farmers deliver.

- An efficient distribution system for milk and dairy products.

- A market where the market power and market knowledge of buyer and seller are approximately equal.

These are generally in the market picture where a Federal milk order is operating. □



# YIELD GRADING MAKES SENSE—AND DOLLARS

By W. Edmund Tyler

**T**ODAY IN THE CATTLE industry, more and more people are joining the "in" group—the breeders, feeders, packers, wholesalers, and retailers who realize what retail-cut yield variations in beef carcasses mean in dollars and cents.

They know that at present prices, each 1 percent change in retail cut yield—cutability—means a retail value difference of nearly \$2 per hundred pounds.

This means that for 600-pound carcasses, a 15 percent difference in cutability means a difference in retail value of \$175! This much difference in value is unusual, but value differences of \$40 to \$50 are quite common.

It is this fact that has spurred the use of the U.S. Department of Agriculture's yield grades—designed to measure differences in the cutability of beef carcasses.

Literally, the yield grades measure the yield of boneless, closely trimmed retail cuts from the high-value parts of the carcass—the round, loin, rib, and chuck. However, they also reflect differences in total yield of retail cuts. The grades are designated numerically, with Yield Grade 1 denoting the highest yield and Yield Grade 5 the lowest.

Since 1965, USDA's Consumer and Marketing Service has offered an official yield grading service, which may be used together with, or separately from, its quality grading service for beef carcasses.

That this service is filling a major need in the livestock marketing structure is indicated by the steady growth in its use. During most of 1969, more than 200 million pounds of beef were yield graded each four weeks. This is equivalent to 21 percent of the beef that is quality graded by USDA.

In some areas considerably more beef is yield graded than the national average cited above. In the Texas area, for example, more than half of the beef quality graded is yield graded. In the Colorado area, about 37 percent of the quality graded beef is yield graded too. A number of major beef slaughtering plants are yield grading all carcasses that qualify for Yield Grades 1, 2, and 3.

A significant development in industry use of beef yield grades came in two auction sales held earlier this year at the Lugbill Auction in Archbold, Ohio—one of the largest auctions east of the Mississippi River. For the first time, live cattle were sold at auction on a carcass weight basis that included price differences according to official quality grade and yield grade.

The system worked as follows: Bidding on the cattle was on the basis of a U.S. Choice, Yield Grade 3 carcass. Quality and cutability premiums and discounts were established before the sale. After the cattle were slaughtered, each carcass was individually graded by a USDA grader for both quality and yield grade. If a carcass graded higher or lower on either of the two factors in the established base (U.S. Choice, Yield Grade 3), the final payment was adjusted. For example, at the second auction, owners of animals that produced carcasses of Choice quality grade with Yield Grade 1 received \$3 per hundred pounds more than the base price. Yield Grade 2 carcasses brought \$1.50 per hundred pounds more. On the other hand, owners of Yield Grade 4 carcasses took \$1.50 per hundred pounds less than the base of Yield 3, Yield 5 carcasses \$3 less.

The main reason for initiating this new method for selling cattle,

according to the Independent Livestock Marketing Association of Columbus, Ohio, was to provide financial incentives for producers of high-quality, high-cutability cattle. Results of this new auction method are being studied, and further sales on this basis are planned.

Yield grades are also important in beef cattle improvement programs. Thickness of muscling and the production of high-quality lean with a minimum of excess fat are heritable traits. So, breeders who want to improve their cattle along these lines may do so by considering these factors in selecting breeding animals. USDA's Beef Carcass Evaluation Service can help breeders by providing detailed carcass data on individual animals, such as rib-eye size, marbling, texture and color of lean, fat thickness—or other grade factors that breeders request. Such carcass data should enable a breeder to determine which animals have the ability to produce the most desirable carcasses. For more information about this USDA service, contact a USDA meat grader at the nearest packing plant.

Most livestock and meat specialists believe that the use of yield grades will continue to expand. If consumers increase their demands for closely trimmed beef cuts (and they probably will) retailers will give increasing attention to differences in the cutability of the beef they buy—and price differences between yield grades will become greater. In turn, packers will pass this demand back to the producer in the form of price differentials for the different yield grades of live animals. □

*The author is Chief, Standardization Branch, Livestock Division, C&MS, USDA.*



# We Work Well With Our Canadian Neighbors

HAVE YOU EVER had any Canadian apples? Now wait, before you answer no. You just might have. Or if it wasn't apples, it may have been cherries, pears, cabbage, carrots, cucumbers, lettuce, potatoes, or turnips. We import a variety of fresh fruits and vegetables from Canada to supplement our own supplies, and Canada imports an even greater variety and amount from us. In 1968, the exchange amounted to 431 million pounds of fresh fruits and vegetables from Canada and 2.1 billion pounds from the United States.

The fresh fruit and vegetable inspection services of both the U.S. and Canadian Departments of Agriculture make this trade a little easier by cooperating when inspection of fresh fruits and vegetables for quality is required.

Canadian import regulations, for example, require that 26 fruits and vegetables must be certified by their inspectors as meeting Canadian quality or grade standards when they enter Canada. But when such fruits and vegetables are imported from the U.S., Canada will accept certification by U. S. inspectors that these fruits and vegetables meet equivalent U.S. grade standards.

The reverse situation applies for fruits and vegetables coming from Canada to the U.S.; we accept Canadian inspection and certification that the products meet Canadian grade standards equivalent to ours. U.S. regulations require such inspection of imports only when the quality, size, or maturity of a particular fruit or vegetable is regulated under a Federal marketing order in internal U.S. trade.

The arrangements for cooperative inspection are carried through on the U.S. side by the Fruit and Vegetable Division of USDA's Consumer and Marketing Service. Canada is the only country with which we have an agreement such as this—imports from other countries (when such inspection is required) must be certified by U.S. inspectors.

Besides this cooperation between the two Departments of Agriculture on inspection matters, there is also a close working relationship between members of the apple industries of the two countries. Before the apple season starts, a joint U.S.-Canadian apple meeting is usually held to coordinate the marketing of apples and to maintain good relations between the two industries.

The meeting, held in July or August, is sponsored by the Canadian Horticultural Council and the International Apple Association. Representatives of growers' and shippers' organizations and the two Departments of Agriculture meet to exchange information on production, marketing problems, grade standards, and other matters. Canadian and U.S. representatives work together to solve common problems, such as trade restrictions of other countries.

Oddly enough, when it comes to apples, the trade balance between Canada and the U.S. is in the opposite direction from the general trade in fresh fruits and vegetables. Although we produce almost six times as many apples as Canada, we import more apples from them than they do from us. Last year, the trade across the border was 100 million pounds of Canadian apples and 32 million pounds of U.S. apples. Our production was more than 5 billion pounds, and Canada's apple crop was not quite 1 billion. The larger market here for apples—our population tops 200 million as opposed to Canada's 21 million—is probably the reason. □

## Meat Acceptance Service Solves Buying Problems

BOTH THE STATE of Oklahoma and the U.S. Navy Ship's Store Office have come to the same solution in solving their meat buying problems. They have decided to use the U.S. Department of Agriculture's Meat Acceptance Service.

Under this program, meat graders employed by USDA's Consumer and Marketing Service examine products ordered by institutional buyers to see that they meet specification requirements. Buyers use USDA's In-

stitutional Meat Purchase Specifications (IMPS) to set forth their requirements in standardized terms. The IMPS contain detailed descriptions for a very large number of fresh, cured, and processed meat items. They also permit optional requirements to be specified such as USDA quality and yield grades, weight range, and fat trim.

The Ship's Store Office, which supplies Navy exchange stores and canteens world-wide, uses the USDA

Meat Acceptance Service as a means of limiting the fat content of ground beef purchases. According to Navy purchasing officials, the fat content of the ground beef bought has dropped as much as 21 percent since they began using the Acceptance Service.

All meat products purchased by the State of Oklahoma since May 1 of this year are also being checked under the USDA Meat Acceptance Service. □

## A GOOD REASON TO STAY IN SCHOOL

**W**HAT CAN YOU DO with a college degree? If you live in an agricultural center like Yuma, Arizona, you might be interested in a job as a fruit and vegetable market news reporter.

Bill Struck, officer-in-charge of the Federal-State Market News office in Yuma, described his job to a group of Upward-Bound students at Arizona Western College recently, to let them know the kind of job a college degree can lead to.

The Upward-Bound Project, sponsored throughout the country by the U.S. Office of Education, encourages high school students to stay in school and go on to college.

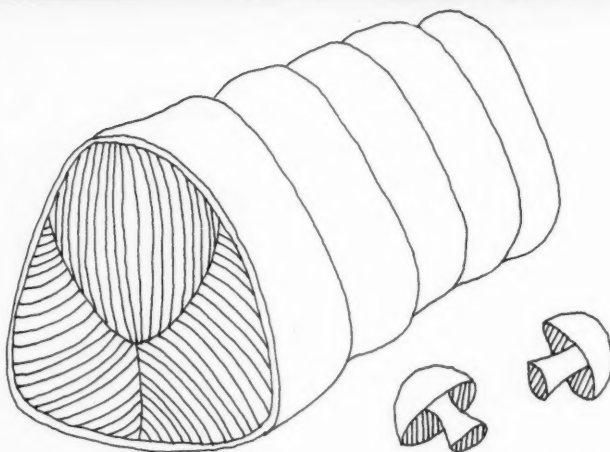
The U.S. Department of Agriculture's Consumer and Marketing Service administers the Federal-State Market News Service in cooperation with State agencies. C&MS' Fruit and Vegetable Division cooperates in the operation of Federal-State fruit and vegetable market news offices at 24 terminal (wholesale) markets and 47 production areas, and trains from 2 to 3 new reporters each year.

The market news service provides nationwide daily reports on prices, supplies, and market conditions, to help buyers and sellers decide where and when to buy and sell.

The F&V market reporter's job is fast-paced, demanding, and satisfying. As Mr. Struck told the students, a job like this is a good reason to stay in school. □

### NOVEMBER PLENTIFULS

Turkeys and canned peaches top this month's plentiful foods list. Both are in good supply and will be an excellent buy for the consumer. Also included on the list are canned and frozen green beans, and large supplies of fresh potatoes, apples, and sweetpotatoes. Rounding out the list are rice, dry beans, and broiler-fryers. □



**W**HETHER YOU WANT a meat entree fit for a gourmet or a hearty he-man meal, beef roasts can fill the bill. These nutritious meats in all cuts and quality grades provide good eating if properly prepared. Use dry heat for the more tender cuts and the higher grades, and use moist heat for the less tender cuts and the lower grades. You may already know that, but just how much do you know about beef roasts? Try this quiz from the U.S. Department of Agriculture's Consumer and Marketing Service and find out.

#### Questions:

**1** Beef varies in quality more than any other kind of meat.

- a. Yes.
- b. No.

**2** The USDA grade mark for meat is a

- a. circle.
- b. shield.
- c. triangle.

**3** The USDA beef grade most widely sold at retail is

- a. USDA Prime.
- b. USDA Choice.
- c. USDA Good.
- d. USDA Standard.
- e. USDA Commercial.

**4** "Marbling" in beef means

- a. a wider, thicker fat band.
- b. meat nearest the bone.
- c. flecks of fat within the lean.
- d. brighter red color.
- e. none of the above.

**5** The more tender cuts of beef are generally taken from

- a. the less-used muscles along the back of the animal.

- b. the rib section.
- c. the loin section.
- d. all of the above.
- e. none of the above.

**6** Names given beef cuts sometimes vary from store to store and in different parts of the country.

- a. Yes.
- b. No.

**7** USDA graders, highly trained in determining meat quality, grade

- a. whole carcasses.
- b. wholesale cuts.
- c. retail cuts.
- d. both a and b.
- e. both b and c.

**8** All meat is graded.

- a. Yes.
- b. No.

**9** Most often cured and sold as corned beef is the

- a. Shoulder clod.
- b. Shoulder arm.
- c. Brisket.
- d. Sirloin tip.
- e. Heel of round.

**10** You're planning an extra-special dinner. Which roast would you choose to serve?

- a. USDA Prime rump roast.
- b. USDA Prime sirloin tip.
- c. USDA Prime blade chuck.
- d. USDA Prime rib roast.

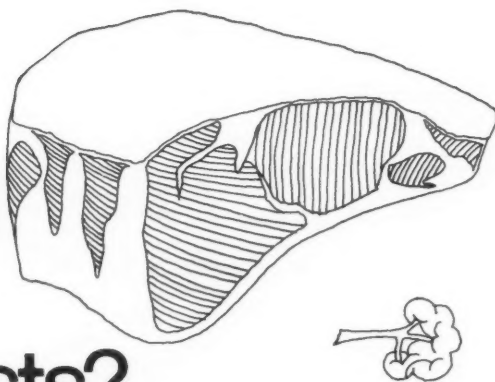
**11** Less tender cuts of beef are a waste of money.

- a. Yes.
- b. No.

**12** "Prime Rib" listed on a restaurant menu is always USDA Prime in quality.

- a. Yes.
- b. No.

# befuddled about Beef Roasts?



## Answers:

**1** (a) Yes. But you don't have to learn to judge beef quality for yourself. USDA grades are a reliable guide to meat quality—its tenderness, juiciness, and flavor. The grades are based on nationally uniform Federal standards of quality and are applied by USDA graders. Therefore, you can be sure that a USDA Choice rib roast, for example, will provide the same good eating no matter where or when you buy it.

**2** (b) Shield. The shield-shaped grade mark containing the letters USDA and the name of the grade, such as Prime, Choice, etc., can be found on most cuts of graded meat. A round mark is used by USDA to show that the meat has passed inspection for wholesomeness.

**3** (b) USDA Choice. Each USDA beef grade is a measure of a distinct level of quality. Choice grade is produced in the greatest volume and many retailers have found that this level of quality pleases most of their customers.

**4** (c) Flecks of fat within the lean. Marbling enhances both flavor and juiciness. The degree of marbling is one of the quality factors considered by USDA graders.

**5** (d) All of the above. Cuts from the less-used muscles along the back of the animal—the rib and loin sections—will always be more tender than those from the active muscles such as the shoulder (chuck), flank,

and round. The most tender cuts make up only a small portion of the beef carcass—and they are in greatest demand. Therefore, they command a higher price than other cuts.

**6** (a) Yes. The terms used do not always mean the same thing. For example, a “cross cut rib roast” may be cut from the blade portion of the chuck in some parts of the country—in others it may be from the shoulder arm portion of the chuck. It is not the cut from the rib roast, as you might assume from the name. Your best guide is standard terminology for cuts, such as blade chuck, rib roast, rump roast, as used by many stores, and as described in the publication “How to Buy Beef Roasts,” prepared by USDA's Consumer and Marketing Service.

**7** (d) Both a and b. When the carcass or wholesale cut is graded, a purple shield-shaped mark containing the letters USDA and the grade name is applied with a roller. Then when the carcass or wholesale cut is divided into retail cuts, one or more of the grade marks will appear on most of these cuts.

**8** (b) Meat grading is a voluntary service provided by C&MS to meat packers and others who request it and pay a fee for the service. So not all meat is graded although a large percentage of it is.

**9** (c) Brisket. Definitely a less tender cut, brisket should be cooked with moist heat in all grades.

**10** (d) USDA Prime rib roast. Unexcelled for tenderness and flavor,

easy to prepare, carve, and serve—the rib roast is the favorite for company fare.

**11** (b) No. Less tender cuts are often a good buy. Such cuts include shoulder arm chuck roasts, bottom round and eye-of-round roasts, and brisket. Cook these with moist heat in any grade. The most tender cuts are no more nutritious than less tender cuts.

**12** (b) No. Prime rib often is used to refer to the primal cut, and it means it is taken from the rib section of the carcass. Thus the term “prime rib” is a name frequently used to identify the roast and not necessarily a reference to quality. Actually, “prime rib roast” served in restaurants could be any quality grade. If you buy a rib roast marked USDA Prime, you can be assured of the highest quality.

Score yourself two points for each correct answer.

20-24 Excellent. You really know your beef roasts. Congratulations.

16-20 Very Good. You know the beef you buy pretty well, but you could still profit from the C&MS booklet, “How to Buy Beef Roasts,” G-146.

8-16 Fair. To balance your food-buying budget better, you would find it valuable to own “How to Buy Beef Roasts.”

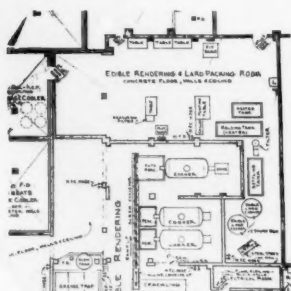
Below 8. **DON'T DELAY.** Send for the booklet today! Write: Office of Information, U.S. Department of Agriculture, Washington, D.C. 20250. Please use your ZIP code. ☐

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## COVER STORY

Blueprints are the first step in the construction of clean, sanitary meat and poultry plants. See page 5 for complete story.



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